

Amendments to the Claims

Claims 1 - 6 (canceled)

1 Claim 7 (original): A computer program product for improving performance and resource  
2 utilization of software applications that interact with a back-end data source to update information  
3 stored therein, the computer program product embodied on one or more computer-readable  
4 media and comprising:

5 computer-readable program code means for storing one or more objects in a cache for  
6 responding to update requests against the objects, wherein (1) a set of input properties is stored  
7 with or associated with each stored object and (2) update logic specifying how to update each of  
8 the stored objects is stored with or associated with the stored object or a group of stored objects;

9 computer-readable program code means for receiving update requests against one or more  
10 of the objects;

11 computer-readable program code means for determining an update mode to use for a  
12 selected update request, responsive to the computer-readable program code means for receiving;

13 computer-readable program code means for immediately processing the selected update  
14 request if the determined update mode is not a delayed update mode; and

15 computer-readable program code means for delaying processing of the selected update  
16 request otherwise.

1 Claim 8 (original): The computer program product according to Claim 7, wherein the computer-  
2 readable program code means for delaying processing further comprises:

Serial No. 09/611,157

-5-

Docket RSW9-2000-0034-US1

3 computer-readable program code means for queuing the selected update request, along  
4 with the input properties and values thereof which are to be used for performing the selected  
5 update request, as a queued update request on an update queue;

6 computer-readable program code means for detecting a triggering event for performing  
7 the delayed processing of the queued update requests; and

8 computer-readable program code means for performing, responsive to the computer-  
9 readable program code means for detecting, the queued update requests.

*all*  
1 Claim 9 (original): The computer program product according to Claim 8, wherein the computer-  
2 readable program code means for performing further comprises:

3 computer-readable program code means for setting the input properties of a selected  
4 object against which the queued update request is to be performed using the queued input  
5 property values; and

6 computer-readable program code means for executing the update logic stored with or  
7 associated with the selected object.

1 Claim 10 (original): The computer program product according to Claim 8, wherein the triggering  
2 event comprises reaching a particular count of queued update requests for a selected object.

1 Claim 11 (original): The computer program product according to Claim 8, wherein the triggering  
2 event comprises reaching a particular time of day.

Serial No. 09/611,157

-6-

Docket RSW9-2000-0034-US1

1 Claim 12 (original): The computer program product according to Claim 8, wherein the update  
2 policy comprises information about an associated object which is used for responding to read  
3 requests.

1 Claim 13 (original): The computer program product according to Claim 8, wherein a separate  
2 update queue is created for each of one or more back-end data sources to be accessed during  
3 operation of the computer-readable program code means for performing.

1 Claim 14 (original): The computer program product according to Claim 7, wherein the computer-  
2 readable program code means for determining further comprises computer-readable program code  
3 means for selecting the delayed update mode based upon a time of day when the selected update  
4 request is received.

1 Claim 15 (original): The computer program product according to Claim 7, wherein the computer-  
2 readable program code means for determining further comprises computer-readable program code  
3 means for selecting the delayed update mode based upon a classification of a user making the  
4 selected update request.

1 Claim 16 (original): The computer program product according to Claim 8, further comprising:  
2 computer-readable program code means for connecting to the back-end data source prior  
3 to operation of the computer-readable program code means for performing; and  
4 computer-readable program code means for disconnecting from the back-end data source

Serial No. 09/611,157

-7-

Docket RSW9-2000-0034-US1

5 after operation of the computer-readable program code means for performing.

Claims 17 - 22 (canceled)

1 Claim 23 (original): A system for improving performance and resource utilization of software  
2 applications that interact with a back-end data source to update information stored therein,  
3 comprising:

4 means for storing one or more objects in a cache for responding to update requests against  
5 the objects, wherein (1) a set of input properties is stored with or associated with each stored  
6 object and (2) update logic specifying how to update each of the stored objects is stored with or  
7 associated with the stored object or a group of stored objects;

8 means for receiving update requests against one or more of the objects;

9 means for determining an update mode to use for a selected update request, responsive to  
10 the means for receiving;

11 means for immediately processing the selected update request if the determined update  
12 mode is not a delayed update mode; and

13 means for delaying processing of the selected update request otherwise.

1 Claim 24 (original): The system according to Claim 23, wherein the means for delaying  
2 processing further comprises:

3 means for queuing the selected update request, along with the input properties and values  
4 thereof which are to be used for performing the selected update request, as a queued update

Serial No. 09/611,157

-8-

Docket RSW9-2000-0034-US1

5 request on an update queue;  
6 means for detecting a triggering event for performing the delayed processing of the  
7 queued update requests; and  
8 means for performing, responsive to the means for detecting, the queued update requests.

1 Claim 25 (original): The system according to Claim 24, wherein the means for performing further  
2 comprises:

3 means for setting the input properties of a selected object against which the queued update  
4 request is to be performed using the queued input property values; and  
5 means for executing the update logic stored with or associated with the selected object.

1 Claim 26 (original): The system according to Claim 24, wherein the triggering event comprises  
2 reaching a particular count of queued update requests for a selected object.

1 Claim 27 (original): The system according to Claim 24, wherein the triggering event comprises  
2 reaching a particular time of day.

1 Claim 28 (original): The system according to Claim 24, wherein the update policy comprises  
2 information about an associated object which is used for responding to read requests.

1 Claim 29 (original): The system according to Claim 24, wherein a separate update queue is  
2 created for each of one or more back-end data sources to be accessed during operation of the

Serial No. 09/611,157


-9-

Docket RSW9-2000-0034-US1

3 means for performing.

1 Claim 30 (original): The system according to Claim 23, wherein the means for determining  
2 further comprises means for selecting the delayed update mode based upon a time of day when  
3 the selected update request is received.

1 Claim 31 (original): The system according to Claim 23, wherein the means for determining  
2 further comprises means for selecting the delayed update mode based upon a classification of a  
3 user making the selected update request.

 1 Claim 32 (original): The system according to Claim 24, further comprising:  
2 means for connecting to the back-end data source prior to operation of the means for  
3 performing; and  
4 means for disconnecting from the back-end data source after operation of the means for  
5 performing.

Claims 33 - 38 (canceled)

1 Claim 39 (original): A method for improving performance and resource utilization of software  
2 applications that interact with a back-end data source to update information stored therein,  
3 comprising the steps of:  
4 storing one or more objects in a cache for responding to update requests against the

Serial No. 09/611,157

-10-

Docket RSW9-2000-0034-US1

objects, wherein (1) a set of input properties is stored with or associated with each stored object and (2) update logic specifying how to update each of the stored objects is stored with or associated with the stored object or a group of stored objects;

receiving update requests against one or more of the objects;

determining an update mode to use for a selected update request, responsive to the receiving step;

immediately processing the selected update request if the determined update mode is not a delayed update mode; and

delaying processing of the selected update request otherwise.

all  
1 Claim 40 (original): The method according to Claim 39, wherein the step of delaying processing  
2 further comprises the steps of:

3 queuing the selected update request, along with the input properties and values thereof  
4 which are to be used for performing the selected update request, as a queued update request on an  
5 update queue;

6 detecting a triggering event for performing the delayed processing of the queued update  
7 requests; and

8 performing, responsive to the detecting step, the queued update requests.

1 Claim 41 (original): The method according to Claim 40, wherein the performing step further  
2 comprises the steps of:

3 setting the input properties of a selected object against which the queued update request is

4 to be performed using the queued input property values; and  
5 executing the update logic stored with or associated with the selected object.

1 Claim 42 (original): The method according to Claim 40, wherein the triggering event comprises  
2 reaching a particular count of queued update requests for a selected object.

1 Claim 43 (original): The method according to Claim 40, wherein the triggering event comprises  
2 reaching a particular time of day.

1 Claim 44 (original): The method according to Claim 40, wherein the update policy comprises  
2 information about an associated object which is used for responding to read requests.

1 Claim 45 (original): The method according to Claim 40, wherein a separate update queue is  
2 created for each of one or more back-end data sources to be accessed during operation of the step  
3 of performing.

1 Claim 46 (original): The method according to Claim 39, wherein the determining step further  
2 comprises the step of selecting the delayed update mode based upon a time of day when the  
3 selected update request is received.

1 Claim 47 (original): The method according to Claim 39, wherein the determining step further  
2 comprises the step of selecting the delayed update mode based upon a classification of a user

Serial No. 09/611,157

-12-

Docket RSW9-2000-0034-US1



3 making the selected update request.

1 Claim 48 (original): The method according to Claim 40, further comprising the steps of:  
2 connecting to the back-end data source prior to operation of the performing step; and  
3 disconnecting from the back-end data source after operation of the performing step.

---

Serial No. 09/611,157

-13-

Docket RSW9-2000-0034-US1